

Abstract

Objective: The aim of this study was to examine the effectiveness of group training of process emotion regulation strategies in cognitive coping of individuals suffering substance abuse. **Method:** A quasi-experimental design along with pretest-posttest and control group was used for this study. Then, 16 patients suffering substance abuse were selected through convenience sampling and were randomly assigned to two control and experimental groups. The experimental group received 10 sessions of group training of process emotion regulation strategies while the control group received no treatment. Both groups before and after the treatment completed the Persian version of cognitive emotion regulation questionnaire (Hasani, 2011). **Results:** The results showed that group training of process emotion regulation strategies leads to a reduction in maladaptive strategies such as self-blame, rumination, catastrophizing, and other-blame; and an increase in adaptive strategies such as refocus on planning, positive reappraisal, and putting into perspective. **Conclusion:** Training of process emotion regulation strategies via the reduction of maladaptive and increase of adaptive cognitive emotion regulation strategies can provide the opportunity for the improvement and non-return to substance abuse.

Keywords: Process Emotion Regulation, Cognitive Emotion Regulation, Cognitive Coping, Substance Abuse

The Effectiveness of Group Training of Process Emotion Regulation Strategies in Cognitive Coping of Individuals Suffering Substance Abuse

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Introduction

Substance abuse disorder is a chronic relapsing disorder that is followed by many problematic issues in the medicinal, psychiatry, family, occupational, legal, financial, and spiritual areas. This disorder affects not only individuals' lives, but it also brings about many shortcomings and problems for the family and the community, and imposes many burdens on them. Like any other chronic disorders, substance abuse persons need to treatment management over time (Termorshuzen et al, 2005). Substance abuse is an issue that has been of interest to psychiatrists and clinical psychologists because it occasions long-term negative consequences in various sectors of society (Carr, 1999). Today, the maintenance of the new behavior (improvement) or relapse prevention of patients under treatment is emphasized. One way to achieve this goal is to examine the continuation of relapse section and predisposing, precipitating, and maintaining factors since it is possible to take measures to remove and control a phenomenon only by identifying its causes. According to recent surveys, several factors such as demographic, social, and family factors are effective in the start, continuity, and return of this disorder after treatment (Poorshahbaz, Shamlou, Jazayeri & Ghazi, 2005).

Process emotion regulation strategies are one of the causes of the prevalence and persistence of the disorder. Substance abuse results from low levels of positive emotion regulation strategies and an inability to deal effectively with emotions and their management (Parker, Taylor, Eastabrook, Schell & Wood, 2008). When people are under stresses for substance abuse, poor management of their emotions increases the risk of substance abuse. In contrast, the effective management of emotions reduces the risk of substance abuse. The ability of emotion management causes the person to properly use coping strategies in situations with the high risk of drug use (Abolghasemi, Allahgholilou, Narimani & Zahed, 2011).

Emotion regulation can be defined as the process by which individuals can affect what emotions to have and when to experience and express them (Gross, 1998). Management of emotions is regarded as the internal and external processes that are responsible for monitoring, evaluating, and changing a person's emotional response towards the satisfaction of his/her goals. It is noteworthy that any problem and defect in emotion regulation can make the individual vulnerable to mental disorders such as depression and anxiety (Garnefski & Kraaij, 2003). Thus, it can be argued that emotion regulation is a key factor in mental well-being and effective functioning (Garnefski, Kraaij & Spinhoven, 2001; Garnefski & Kraaij, 2003) which plays such a pivotal role in coping with life event tensions (Thompson, 1994; Gross, 1998; 2002) that even it influences the quality of whole life (Mashhadi, Mirdoraghi & Hasani, 2011). One of the most common methods in this regard is the use of cognitive strategies (Mashhadi et al., 2011). Cognitive emotion-regulation strategies are the

processes that are employed by people to manage emotional and stimulating information (Garnefski, Boone & Kraaij, 2003) and that focus on the aspects of cognitive coping (Garnefski et al., 2001). How to assess a person's cognitive system in the face of a negative event is of great importance, mental health is the result of mutual interaction between the use of certain types of cognitive emotion regulation strategies and cognition evaluation of stressful situations (Garnefski, Teerds, Kraaij, Legerstee & Kommer, 2003). Therefore, thoughts and knowledge play an important role in management abilities, emotion regulation and control, the regulation of emotions after experiencing a stressful event (Garnefski et al., 2003). For emotion regulation, researchers have introduced 9 cognitive strategies, namely self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, and other-blame (Hasani, Azadfallah, Tabatabai & Ashayeri, 2008; Garnefski et al., 2001; 2003). Cognitive emotion regulation strategies help people regulate their negative emotions and stimulation. This regulation method is directly associated with growth, development or prevalence of psychological disorders linked (Kraaij, Pruymboom & Garnefski, 2002). Emotion regulation, especially the positive strategy of cognitive reappraisal leads to the decrease of individuals' negative emotions and increase of their positive emotions and adaptive behavior (Gross & John, 2003). Therefore, one selects a cognitive strategy to deal with stressful situations with regard to an incorrect evaluation of the situation due to lack of information, misunderstanding or irrational and false beliefs. In this view, people are assisted to rebuild their thought patterns by cognitive restructuring (Garnefski & Kraaij, 2006). Cognitive emotion regulation strategies are those cognitive responses to the events stimulating emotions that consciously or unconsciously try to regulate the severity and/or the type of emotional experience or the event (Harvey, Watkins, Mansell & Shafran, 2004; Campbell-Sills & Barlow, 2007; Rottenberg & Gross, 2007; Williams & Bargh, 2007). Generally, numerous research findings suggest the existence of a strong relationship between cognitive emotion regulation strategies and psychopathology (Kraaij et al., 2010; Garnefski, Teerds, Kraaij, Legerstee & Van den Kommer, 2004). Furthermore, research has shown that effective emotion regulation has favorable impacts on mental health, psychological well-being, physical health, and interpersonal relationships (Reef & Singer, 1998; cited in Hasani, 2011). Emotion regulation has attracted the attention of many researchers as one of the psychological factors (Mayer, Caruso & Salovey, 1999). Emotion regulation is a major motivation for consumption; indeed, drug users often prefer the consumption of drugs to the pain-killing feature of drugs (Frith, 1971; cited in Abolghasemi et al, 2011). Shiffman (1993, cited in Abolghasemi et al, 2011) claimed that smoking is increased when people get angry, anxious, sad or more distressed. When a person is put under pressure for drug use, the effective management of emotions reduces the risk of abuse. The ability to manage emotions makes people use appropriate coping strategies

in situations where there is a high risk of substance abuse. People who have high levels of emotion regulation are more capable of predicting the demands of others. They perceive others' unwelcomed pressures and control their own emotions in a better way and, thereby, display higher levels of resistance to drug use (Trinidad & Johnson, 2002). In contrast, those with lower emotion regulation often are oriented towards drug use in order to cope with negative emotions (Trinidad, Unger, Chou & Johnson, 2004).

Since emotion regulation constitutes an important part of life, it is not surprising that the confusion in emotions and their regulation can lead to sadness and even mental harm (Amstadter, 2008). Knowledge contributes to regulation emotion; accordingly, people should develop the abilities pertaining to this level in practice to benefit from such knowledge. The ability of emotion regulation leads to the maintenance and improvement of mood. People who do not have the ability to regulate their emotions are more likely to be influenced by environmental factors (Airbar, 1996 cited in Janaabady, 2009). Therefore, training cognitive emotion regulation strategies can preserve the mood and lead to the emergence of improvement methods.

One of the psychosocial interventions that can be effective is training the process emotion regulation strategies that can modify emotion regulation patterns in patients with emphasis on training and emotion regulation skills. Emotion regulation includes all the conscious and unconscious strategies that can be used to increase, maintain, or reduce the emotional, cognitive, and behavioral components of an emotional response. On the other hand, training emotion regulation means the decrease and control of negative emotions and how to positively use emotions (McDermott, Tull, Gratz, Daughters, & Lejuez, 2009).

In this regard, it is assumed that people suffering substance abuse take drugs in order to manage their harmful emotional states that are at play in an uncontrollable way because of difficulties in effectively understanding and dealing with such emotions (Lindsay & Ciarrochi, 2008). Therefore, training emotion regulation can be considered as a part addiction relapse prevention programs.

The central core of treatment in this research is teaching process regulation emotion strategies based on Gross and John's model (2003). They proposed process model of emotion regulation based on emotion generation model. The initial model consists of five stages, namely initiation, situation, attention, appraisal, and response. They believe that there is a potential target for regulation in each sequence of emotion generation and emotion regulation skills can be applied in all the points of this process (Gross & Thompson, 2007). Based on the primary model, Gross designed the process model of emotion regulation and highlighted five points of emotion generation process, each of which represents one family of emotion regulation process.

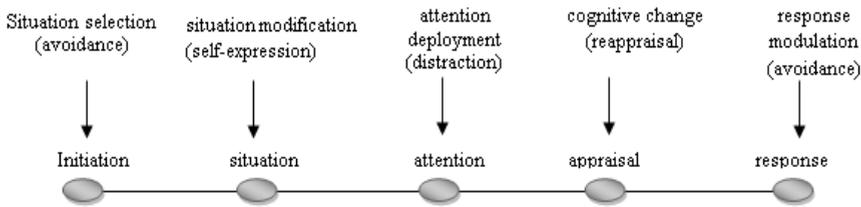


Figure 1: Five points of emotion regulation processes based on emotion-generation quality model (adapted from Gross & John, 2003 and Gross & Thompson, 2007)

According to figure 1, there are some factors in the initiation of an emotion or situation selection that put the person in a situation of emotional arousal or take him/her away from that situation (avoidance). In the second phase, it is possible to bring about some changes into the process of emotion generation. At this stage, self-expression is one of emotion regulation strategies. In the third phase, attention deployment or attention focus is one way to create change and emotion regulation. Three methods of attention focus include distraction, focus, and rumination (Gross & Thompson, 2007). Individuals intensify their attention entirely on the situation or a specific aspect of it through focusing while rumination refers to concentration of attention on emotions and its implications. According to Gross, emotion regulation is responsible for bringing about cognitive changes in the fourth step (appraisal). Cognitive reappraisal is one of its strategies (Gross & Thompson, 2007). Response is the last stage of emotion generation and response modulation constitutes some part of the process of emotion regulation.

Gross's emotion regulation process model consists of five stages; each stage involves a set of adaptive strategies and maladaptive strategies. The individuals suffering emotional problems use more of maladaptive strategies (such as rumination, anxiety, avoidance, etc.). Removal or modification of maladaptive strategies and teaching adaptive strategies are required for intervention in emotional problems. In general, the use of cognitive coping adaptive strategies causes people to be traumatized less than before. As well, this therapeutic approach lays emphasis on the pivotal role of positive and negative emotions in treatment and also on effective emotion regulation during the treatment. This study was carried out with the aim of providing response to the question as whether training of process emotion regulation strategies is effective in cognitive coping of substance abusers.

Method

A quasi-experimental design along with pretest-posttest and control group was used for this study. The population of this study is composed of the substance abusers referring to rehab centers of Alborz province in 2012, from

among whom 16 patients were selected through convenience sampling and were randomly assigned to two control and experimental groups. They were selected based on such criteria as consumption of opiates (opium and its syrup), diagnosis of substance abuse according to the criteria of Diagnostic and Statistical Manual of Mental Disorders (fifth edition), being in the 25-50-year age group, participants' consent and willingness for participating in the research, and literacy. In the same way, suffering from physical diseases and other similar condition were the exclusion criteria.

Instrument

The first instrument was a researcher-made one designed to tap into the demographic information of the participants and the inclusion criteria.

The second instruments used in this study was the structured clinical interview for Axis I disorders. This interview is a flexible tool for the diagnosis of Axis I major disorders which has been designed by First and his colleagues based on Diagnostic and Statistical Manual of Mental Disorders (First, Spitzer, Gibbon & Williams, 1996; cited in Hashemi, Mahmoud Alilou, & Hashemi Nosratabad, 2010). Tran & Smith (2004) have evaluated the inter-rater reliability of this scale and have obtained the kappa coefficient equal to .60 (cited in Hashemi, et al, 2010). Sharifi and his colleagues conducted this scale on a 299-participant sample after translating it into Persian (Sharifi, Asadi, & Mohammadi, 2004; cited in Hashemi et al, 2010). Their results implicated moderate of good diagnostic agreement (kappa statistic greater than .60) for the most specific and overall diagnoses. Furthermore, the general consensus (total kappa was .52 for the current diagnoses and .55 for all lifetime diagnoses) was also satisfactory.

The short version of cognitive emotion regulation questionnaire (henceforth referred to as CERQ) was another instrument used in this study for data collection purposes. It was developed by Garnefski et al in the Netherlands and has two versions, English and Dutch (2001). CERQ is a multidimensional questionnaire constructed in order to identify individuals' cognitive coping strategies after experiencing negative events or situations. It is a self-report scale and consists of 36 items and 9 sub-scales, namely self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, catastrophizing, other-blame, and putting into perspective. The psychometric properties of the Persian version of the short form of CERQ on Iranian culture were evaluated by Hasani (2011). The Persian version of this scale reached the highest Cronbach's alpha coefficient using stepwise removal of items and, then, it was developed based on validation analysis. The validity of the scale was investigated via principal component analysis method and the correlation between the sub-scales and criterion validity was examined through Varimax rotation. The Cronbach's alpha ranging from .68 to .82 showed that all the nine

subscales of the Persian version of CERQ enjoy desired reliability. Therefore, there was a high correlation between the sub-scales (Hasani, 2011).

Procedure

After the selection of the sample based on the inclusion criteria and assignment of the participants to two experimental and control groups, the participants' written consent was obtained. At first, both groups completed the Persian short form of CERQ. Then, the experimental group received 10 weekly sessions of group training of Gross's process emotion regulation strategies under favorable environmental conditions while the control group received no treatment. After the passage of 10 weeks, the Persian version of CERQ was completed by both groups for the second time. The content of training sessions of process emotion regulation strategies is presented in table 1. This treatment package had been prepared by Salehi (2011); Esmaeali, L., Aghayi, A. Abedi, M. & Esmaeali, M (2011), and Allen, Hugh & Barlow (2009) which was validated by the researchers. Each session lasted 90 minutes. According to what is observed in the content of the training sessions, the therapist went for goal-setting on the skills pertinent to patient's emotion regulation and drug abuse behaviors during training; and gave clear and objective examples while stating each point.

Table 1: The content of training sessions of Gross's process regulation emotion

<i>Sessions</i>	<i>Processes</i>	<i>Content of sessions</i>
1 st	Introduction	Introduction and familiarization with team members, stating the group routines and goals, the expression of the logic and intervention processes; why to learn emotion regulation? What are correct perspectives about emotions? A review of the primary and secondary emotions; all emotions are helpful to us.
2 nd	Situation selection	Emotional training: 1) normal emotion and problematic emotion 2) emotional self-awareness: (training and introduction of emotion, identifying, naming, and labeling emotions; distinguishing between different emotions; emotion recognition in a physical and psychological state; factors effective in the success of emotion regulation).
3 rd	Situation selection	Appraisal of the vulnerability level and emotional skills of team members: 1) self-appraisal with the aim of recognizing one's emotional experiences 2) self-appraisal with the aim of the level of emotional vulnerability in individuals 3) self-appraisal with the aim of recognizing one's regulation strategies 4) the cognitive consequences of emotional responses 5) the physiological consequences of emotional responses 6) the behavioral consequences of emotional responses and

<i>Sessions</i>	<i>Processes</i>	<i>Content of sessions</i>
		the relationship of cognitive, physiological, and behavioral consequences 7) introduction of anger emotion and the ways to overcome anger.
4 th	Situation modification	Creation of a change in the situation motivating emotions: 1) prevention of social isolation and avoidance 2) training problem-solving strategy 3) training interpersonal skills (speaking, self-assertion and conflict resolution)
5 th	Attention deployment	Attentional change: 1) stopping rumination and worry 2) training attention
6 th	Cognitive appraisal	Changes in cognitive appraisal: 1) identification of incorrect assessments and their effects on emotional states 2) training reappraisal strategies.
7 th	Response modulation	Change of behavioral and physiological emotions: 1) identification of the degree and manner of use of avoidance strategies and investigation of its emotional consequences 2) Exposure 3) training how to express emotions 4) modification of behavior through changing the environmental motivators 5) training emotional evacuation, and relaxation and reverse action.
8 th	Reappraisal and function	Reappraisal and removal of the application obstacles: 1) appraisal of goal achievement 2) application of learned skills in natural environments outside of session 3) investigation and elimination of the barriers to doing homework.
9 th	Review	A review of the sessions and rehearsing the learned skills
10 th	Review	A review of the sessions and rehearsing the learned skills

Results

The descriptive statistics pertaining to demographic variables are presented in the table below for each group.

Table 2: Descriptive statistics pertaining to demographic variables for each group

<i>Groups</i>	<i>N</i>	<i>Education level</i>		<i>Age</i>	
		<i>Mean (SD)</i>	<i>Range</i>	<i>Mean (SD)</i>	<i>Range</i>
Experimental	8	13.28 (3.41)	6-18	4.55 (35.83)	17-46
Control	8	11.73 (3.62)	6-14	4.43 (33.25)	18-48

The descriptive statistics pertaining to the variables are presented in the table below for each group and test stage.

Table 3: Descriptive statistics pertaining to study variables for each group and test stage

<i>Strategies</i>	<i>Groups</i>	<i>Pretest</i>		<i>Posttest</i>	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Self-blame	Experimental	6.75	1.48	4.25	1.38
	Control	6.37	1.30	6.00	1.92
Positive refocusing	Experimental	4.37	1.30	6.87	.83
	Control	4.87	.64	5.12	1.95
Rumination	Experimental	7.50	1.19	3.62	.52
	Control	7.12	1.35	6.22	1.28
Refocus on planning	Experimental	4.37	.52	6.37	1.19
	Control	4.25	.70	4.75	1.03
Catastrophizing	Experimental	6.87	1.53	4.12	.35
	Control	6.50	1.06	6.87	.83
Positive reappraisal	Experimental	3.87	1.12	6.62	.92
	Control	3.87	.64	4.12	1.12
Other-blame	Experimental	7.00	1.60	4.25	.46
	Control	7.12	1.35	6.75	1.03
Putting into perspective	Experimental	7.12	1.35	4.50	.92
	Control	7.25	1.03	7.37	1.68
Acceptance	Experimental	4.25	.88	5.87	1.24
	Control	4.50	1.07	4.75	2.25

Multivariate analysis of covariance should be used in order to evaluate the effectiveness of training process emotion regulation strategies. First, the outliers were evaluated based on their conversion into standard scores (Z) and the Z scores lying outside of +2 and -2 range were excluded. Next, the assumptions of the homogeneity of variance and normality of distribution were checked through Leven's test and Kolmogorov-Smirnov test, respectively. In the same way, the homogeneity of regression slopes was checked. The results represented the satisfaction of all of these assumptions. Box's M test was run to examine the equality of covariance matrices and the obtained results were indicative of the satisfaction of this assumption, as well ($P > .05$, $F = .80$). The results of MANCOVA test displayed the existence of a significant difference in the multivariate linear combination of components between the two groups ($P < .001$, $F = 3.49$, Wilks' Lambda = .48). Then, univariate analysis of covariance was used to examine differences in patterns as follows.

Table 4: Results of univariate analysis of covariance for different patterns

<i>Variables</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>	<i>Eta squared</i>
Self-blame	125.24	10.74	.006	.28
Acceptance	6.59	2.14	.167	-
Rumination	30.45	45.08	.001	.77
Positive refocusing	8.00	3.87	.071	-
Refocus on planning	12.51	17.66	.001	.576
Positive reappraisal	25.00	22.10	.001	.63
Putting into perspective	31.74	18.65	.001	.58
Catastrophizing	29.31	66.34	.001	.83
Other-blame	24.52	39.32	.001	.75

As it is observed in the table above, there is a significant difference in all the components except in two components, namely acceptance and positive refocusing; as well, the effectiveness of the intervention is evident.

Discussion and conclusion

This study was an attempt to examine the effectiveness of group training of process emotion regulation strategies in cognitive coping of substance abusers. The results showed that the training method of process emotion regulation strategies leads to the diminution of maladaptive cognitive emotion regulation strategies and the augmentation of adaptive cognitive emotion regulation strategies in substance abusers. This finding is consistent with the results obtained by Ghasemzadeh, Payvasteh Gohar, Hoseinian, Moutabi, & Bani Hashim (2010); Salehi (2011); and Ghaednia Jahromi (2013).

This is probably due to the emphasis of training methods of emotion regulation strategies on awareness, control, modification of the negative emotions resulting from interpersonal relationships, practical and workshop exercises, the arrangement of group meetings, and consequent effective interpersonal interactions. Cognitive emotion regulation plays an important role in perceiving the emotional and behavioral correlates of stress and negative emotions (Garnefski et al., 2003). In addition, correct and efficient emotion regulation is viewed as an important factor in coping with stressful life events. Having studied the etiology of substance abuse and relapse of obligatory behaviors, various researchers and theorists have referred to such issues as defect in emotion regulation, low tolerance for discomfort, emotional inhibition, impulsive behaviors and habits, rumination, bias towards substance symptoms, low self-efficacy, impaired coping skills, and spiritual gaps. Several research findings suggest the existence of a strong relationship between cognitive emotion regulation strategies and psychopathology (Garnefski et al., 2001; 2003; Kraaij et al., 2010). Emotion management is regarded as the internal and external processes that are responsible for monitoring, evaluation, and change of a person's emotional response towards the accomplishment of his/her activities. In this regard, any deficiency and defect in emotion regulation can make a person vulnerable to various forms of pathology (Garnefski & Kraaij, 2003). Garnefski & Kraaij (2006) found that individuals with weak cognitive strategies such as rumination, catastrophizing, and self-blame are more vulnerable to emotional problems compared to other people. This is so while those who employ other optimal strategies such as positive reappraisal are less vulnerable. Golman (1995) stated that emotion regulation is low in substance abusers. This idea can be restated in this way that when the person is under stress for substance abuse, poor management of emotions increases the risk of substance abuse. In contrast, effective management of emotions reduces the risk of substance abuse.

Emotion regulation leads to the management of emotional arousal by facilitating access to coping resources. In this way, the degree of accessibility to external support for the management of emotional arousal experiences an increase (Thompson, 1994). The concept of emotion regulation does not refer to a unitary phenomenon, but this phenomenon as a broad concept entails a wide range of some areas of interrelated processes (Thompson, 1994). At the core of these processes, the organization of the nervous system lies which is involved in the regulation of emotional arousal through the internal and external interactions. The use of adaptation strategies increases via process emotion regulation. Increased use of adaptive strategies in individuals brings a considerable improvement of the clinical symptoms in group of patients treated with training sessions of emotion regulation strategies at the end of interventionist sessions. In fact, when a person is placed under pressure for drug use, the effective management of emotions can reduce the risk of substance abuse. The ability to manage emotions causes a person to properly use coping strategies in the situations where there is high risk of drug use (Abolghasemi, Allahgholilou, Narimani, & Zahed, 2011). In the same way, those who have high positive emotion regulation have a higher ability to anticipate the needs of others. They understand the others' unwanted pressures and curb their own emotions in a better way; therefore, they show more resistance to drug use (Trinidad & Johnson, 2002). In contrast, those who have low positive emotion regulation are often drawn to drug use to cope with their negative emotions (Trinidad et al., 2004).

Thus, the selection of effective coping strategies in cognitive, emotional, and behavioral dimensions is helpful in increasing the use of adaptive coping strategies in addition to its effectiveness in the promotion of mental health (Alloy & Riskind, 2006). The selection of cognitive, emotional, and behavioral strategies can affect high or low mental health (Gross, 1998). Overall, studies indicated that the presence of maladaptive emotion regulation strategies is more harmful than the relative absence of emotion regulation strategies (Aldao, Nolen-Hoeksema, & Schweizer, 2010).

Research shows that the effectiveness of medicinal maintenance treatment is questioned without psychosocial intervention due to poor drug compliance and high rates of clients' withdrawal from treatment (Babayi, Hasani & Mohamadkhani, 2012). As the results showed, group training of process emotion regulation strategies could diminish the use of maladaptive cognitive coping strategies and augment adaptive cognitive coping strategies. Due to the fact that training of process emotion regulation strategies based on Gross's model caused the reduction of maladaptive cognitive emotion regulation strategies and increase of adaptive cognitive emotion regulation strategies, it can be concluded that the training program has been effective. The descriptive data obtained in this study demonstrated that both groups were common in terms of age range, education level, and substance type. Therefore, the effect of these factors on the

dependent variables has been controlled due to the random assignment of subjects into two groups and the observed effects in the dependent variables can be attributed to the intervention of the training course based on Gross's emotion regulation process model. That the study was conducted solely on male participants was one of the limitations of the present study. Another limitation of this study is related to the fact that both treatment and assessment were managed and accomplished by one person. This can contaminate the interpretation with bias.

Due to the chronic nature of substance abuse disorder, it is likely that patients receiving the treatment (both medical and psychological) cannot maintain therapeutic gains after the follow-up period because research has shown that from 20 to 90 percent of people with substance abuse have experienced drug use relapse after treatment. Therefore, it is suggested that future researchers add the follow-up stage in their surveys. Also, future researchers interested in this area are highly recommended to compare the effectiveness of this method with that of other skills based on emotion regulation and of other treatment programs such as medication and cognitive behavioral therapy.

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